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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/408,918	09/30/1999	SUSAN C. KROMENAKER	042390.P6518	4616

7590

06/11/2003

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EXAMINER

TSAI, CAROL S W

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/408,918

Applicant(s)

KROMENAKER ET AL.

Examiner

Carol S Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11,15 and 22-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11,15 and 22-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-11, 15, 22-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,381,656 to Shankman in view of U. S. Patent No. 6,134,619 to Futral et al.

With respect to claims 1, 2, 6, 22, 23, 26, 37, and 38, Shankman discloses a method comprising: registering a performance monitoring driver (virtual disk memory area 408 shown on Fig. 4) with a real time operating system (IOP operating system 430 shown on Fig. 4)) of an input/output processor (IOP 420 shown on Fig. 4), wherein the performance monitoring driver is coupled to a performance monitoring unit (I/O monitor 201 shown on Fig. 4) (see col. 4, lines 15-55; col. 16, line 14 to col. 17, line 35; col. 18, lines 10-40; and col. 20, line 51 to col. 21, line 41); selecting events within the I/O processor to gather data on (see Fig. 5; col. 3, lines 33-47; col. 7, lines 13-35; col. 9, lines 15-50; col. 12, lines 1-17; and col. 14, line 5 to col. 15, line 3); and sending the selected events as a message request from a host processor (workstation 200

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shown on Fig. 2) to the RTOS of the I/O processor (see Figs. 2 and 8; col. 7, line 13 to col. 8, line 40; col. 13, line 46 to col. 15, line 20; col. 18, lines 10-40; and col. 20, line 20 to col. 21, line 50).

Shankman does not disclose translating the message request into parameters that are accessible by the RTOS.

Futral et al. teach translating the message request into parameters that are accessible by the RTOS (see col. 4, line 40 to col. 6, line 12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Shankman's method to include translating the message request into parameters that are accessible by the RTOS, as taught by Futral et al., in order to allow low-latency, high-throughput data transfers between PCI bus agents and local memory.

As to claim 33, Shankman also discloses a method comprising: sending requested data from a performance monitoring unit (I/O monitor 201 shown on Fig. 4) to a performance monitoring driver (virtual disk memory area 408 shown on Fig. 4) that is registered with a real time operating system (IOP operating system 430 shown on Fig. 4) on an input/output processor (IOP 420 shown on Fig. 4); and sending a message with the data from the real time operating system to a host processor (workstation 200 shown on Fig. 2) (see Figs. 2 and 8; col. 7, line 13 to col. 8, line 40; col. 13, line 46 to col. 15, line 20; col. 18, lines 10-40; and col. 20, line 20 to col. 21, line 50).

As to claim 40, Shankman also discloses a system comprising: a host processor (workstation 200 shown on Fig. 2); an input/output processor coupled to the host processor; the I/O processor (IOP 420 shown on Fig. 4) to run a real time operating system (RTOS) (IOP

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operating system 430 shown on Fig. 4), the RTOS to register a performance monitoring driver (virtual disk memory area 408 shown on Fig. 4); and a performance monitoring circuit (I/O monitor 201 shown on Fig. 4) coupled to the I/O processor (see Figs. 2 and 8; col. 7, line 13 to col. 8, line 40; col. 13, line 46 to col. 15, line 20; col. 18, lines 10-40; and col. 20, line 20 to col. 21, line 50).

As to claims 3 and 24, Shankman also discloses initiating a performance monitor application that generates a selection screen on display coupled to the I/O processor through the host processor in which selecting events within the I/O processor on which to gather data includes selecting the events on the selection screen (see col. 12, lines 1-17).

As to claims 5, 25, 35, and 42, Shankman also discloses sending the message through an operating system specific module (see col. 15, lines 21-65).

As to claims 7, 8, 27, and 28, Shankman also discloses control parameters for hardware-based performance monitoring resources (see col. 2, lines 21-31; col. 4, lines 15-31; and col. 18, line 63 to col. 19, line 6).

As to claims 9, 10, 29, 30, and 36, Shankman also discloses generating performance monitoring storage tables within a memory of the I/O processor (see Fig. 8 and col. 14, lines 5-33).

As to claims 11 and 31, Shankman also discloses sending the data at a time period specified in the message request (see col. 14, lines 49-61).

As to claims 15 and 32, Shankman does not disclose generating a message that causes a fan internal to the host system to turn on in response to the pieces of data returned from the performance monitoring unit.

The Examiner takes Official Notice that generating a message that causes a fan internal to the host system to turn on in response to the pieces of data returned from the performance monitoring unit, is well known in the art.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Shankman's system to include generating a message that causes a fan internal to the host system to turn on in response to the pieces of data returned from the performance monitoring unit, in order to cool down the heat produced in the computer system.

As to claims 34 and 41, Shankman also discloses returning data received in the message to a performance monitor application (see col. 20, lines 29-40).

As to claim 39, Shankman also discloses a storage device (NVS memory 840 shown on Fig. 8) to store table for collecting requested data.

Response to Arguments

4. Applicant's arguments filed 05/05/2003 have been fully considered but they are not persuasive.

Applicants argue that the invention disclosed and claimed in the applicants claimed application was conceived in the United States of America at least as early as March 10, 1999, as evidenced by the attached document entitled "Intel Invention Disclosure Form" However, the Examiner could not find any document entitled "Intel Invention Disclosure Form" that has been attached to the response mailed 05/05/2003.

Applicants are required to provide the document entitled "Intel Invention Disclosure Form" in the reply to this Office Action.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. Tsai whose telephone number is (703) 305-0851. The examiner can normally be reached on Monday-Friday from 7:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703) 308-1677. The fax number for TC 2800 is (703) 308-7382. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (703) 308-1782.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 308-7382. This practice

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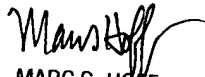
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may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

Carol S. Tsai

06/01/03


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
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